NON-PUBLIC?: N
ACCESSION #: 8906280019
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Joseph M. Farley - Unit 2 PAGE: 1 of 3

DOCKET NUMBER: 05000364

TITLE: Reactor Trip Caused by a Loose Electrical Connector on the 2A Steam Generator Feed Pump Thrust Bearing Wear Cable
EVENT DATE: 05/22/89 LER #: 89-007-00 REPORT DATE: 06/20/89

OPERATING MODE: 1 POWER LEVEL: 035

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: D. N. Morey, General Manager TELEPHONE: (205) 899-5156

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE TO NPRDS:

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

At 1019 on 5-22-89, with the unit operating at approximately 35% power, the reactor tripped due to lo-lo steam generator level. The lo-lo steam generator level occurred because the 2A steam generator feed pump (SGFP), which was providing feedwater flow to the steam generators, tripped. The unit was stabilized in Mode 3 (Hot Standby).

The SGFP trip vas caused by a loose electrical connector on the 2A SGFP thrust bearing wear device. Although the exact cause could not be determined, it is believed that the connector was not fully tightened following maintenance performed during the recent refueling outage. During pump cleaning activities, the cable attached to the loose connector was inadvertently contacted. This caused a thrust bearing wear trip signal to be generated. Thus, the 2A SGFP tripped which caused the lo-lo steam generator level and an automatic reactor trip resulted.

To prevent recurrence of this problem, a preventive maintenance task will be developed to inspect SGFP instrumentation connections for tightness following

major unit or SGFP outages.

The unit returned to power operation on 5-22-89 at 2234.

END OF ABSTRACT

Plant and System Identification:

Westinghouse - Pressurized Water Reactor
Energy Industry Identification System codes are identified in the text as XX!.

Summary of Event

At 1019 on 5-22-89, with the unit operating at approximately 35% power, the reactor AB! tripped due to lo-lo steam generator level. The lo-lo steam generator level occurred because the 2A steam generator feed pump (SGFP) SJ!, which was providing feedwater flow to the steam generators, tripped. The unit was stabilized in Mode 3 (Hot Standby).

Description of Event

On 5-22-89, the unit was operating at approximately 35% power following a refueling outage. The 2A SGFP was providing feedwater to the steam generators and the 2B SGFP was shut down. A Shift Foreman and two System Operators (SOs) were wiping up minor amounts of oil from around the SGFPs.

At 1019, one of the SOs inadvertently contacted an instrumentation cable for the thrust bearing wear to the SGFP control system. This cable was loosely connected and a high thrust bearing wear signal was generated when the cable was contacted. This signal caused the 2A SGFP to trip. A subsequent reactor trip followed due to lo-lo level in the steam generators. The unit was stabilized in Mode 3 (Hot Standby).

Following the trip, the operators implemented FNP-2-EEP-0 (Reactor Trip or Safety Injection) and FNP-2-ESP-0.1 (Reactor Trip Response), ensuring that the unit was safely in Mode 3. The unit was maintained in a normal stable condition.

The 2B SGFP was inspected for a similar condition and all connections were found to be proper.

Cause of Event

This event was caused by a loose electrical connector on the 2A SGFP thrust bearing wear device. Although the exact cause could not be determined, it is believed that the connector was not fully tightened following maintenance performed during the recent refueling outage.

Reportability Analysis and Safety Assessment

This event is reportable because of the actuation of the reactor protection system. After the trip, the following safety systems operated as designed: main feedwater was isolated with flow control valves and bypass valves closed, auxiliary feedwater pumps started automatically and provided flow to the steam generators, source range nuclear instrumentation automatically energized, and pressurizer heaters and spray valves operated automatically as required to maintain system pressure. There was no effect on the health and safety of the public.

Corrective Action

A preventive maintenance task will be developed to inspect SGFP instrumentation connections for tightness following major unit or SGFP outages. Only one of the two SGFPs is required to provide adequate feedwater flow during low power operation. The concept of having the second SGFP available prior to having workers on the running SGFP will be discussed with the appropriate Operations personnel.

Additional Information

The unit returned to power operation on 5-22-89 at 2234. No similar LERs have been submitted by Farley Nuclear Plant.

No components failed during this event.

This event would not have been more severe if it had occurred under different operating conditions.

Alabama Power Company
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 868-5581

W. G. Hairston, III

Senior Vice President
Nuclear Operations June 20, 1989 Alabama Power
the southern electric system
10 CFR 50.73

Docket No. 50-364

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Dear Sir:

Joseph M. Farley Nuclear Plant - Unit 2
Licensee Event Report No. LER 89-007-00

Joseph M. Farley Nuclear Plant, Unit 2, Licensee Event Report No. LER 89-007-00 is being submitted in accordance with 10CFR50.73.

If you have any questions, please advise.

Respectfully submitted,

W. G. Hairst
n, III

WGH,III/JAR:slc 8.25

Enclosure

cc: Mr. S. D. Ebneter
Mr. G. F. Maxwell

*** END OF DOCUMENT ***